

PRELIMINARY AMENDMENT

Serial Number: 10/817,109

Filing Date: April 2, 2004

Title: METHOD AND SYSTEM OF DETECTING SIGNAL PRESENCE FROM A VIDEO SIGNAL PRESENTED ON A DIGITAL DISPLAY DEVICE

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IN THE CLAIMS

1-17. (Cancelled)

18. (New) A method comprising:

accessing a video signal, the video signal comprising a plurality of frames; and
producing a modulated video signal by raising luminance of a first frame and lowering
luminance of a second frame of the plurality of frames in a substantially invisible way.

19. (New) The method of claim 18, wherein producing a modulated video signal comprises:

producing a modulated video signal by raising luminance of a first plurality of pixels of a
first frame of the plurality of frames and lowering luminance of a second plurality of pixels of a
second frame of the plurality of frames in a substantially invisible way.

20. (New) The method of claim 19, wherein the first plurality of pixels includes a same
selection of pixels as the second plurality of pixels.

21. (New) The method of claim 19, wherein at least some of the first plurality of pixels are
located in the first frame at a same location of at least some of the second plurality of pixels in
the second frame.

22. (New) The method of claim 19, wherein the first plurality of pixels includes an entire
portion of pixels of the first frame and the second plurality of pixels includes the entire portion
of pixels of the second frame.

23. (New) The method of claim 19, wherein producing a modulated video signal comprises:

producing a modulated video signal by raising luminance of a first frame and lowering
luminance of a second frame of the plurality of frames in a substantially invisible way, the first

frame and the second frame being consecutive frames of the plurality of frames.

24. (New) The method of claim 18, wherein producing a modulated video signal comprises:
producing a modulated video signal by raising luminance of a first frame by a first amplitude level of at least two amplitude levels and lowering luminance of a second frame of the plurality of frames by a second amplitude level of the at least two amplitude levels in a substantially invisible way.

25. (New) The method of claim 18, wherein accessing a video signal comprises:
receiving an analog video signal generated at a signal source; and
digitizing the analog video signal.

26. (New) The method of claim 18, wherein accessing a video signal comprises:
receiving a digital video signal generated at a signal source.

27. (New) The method of claim 18, wherein accessing a video signal further comprises:
accessing a vertical sync signal; and
determining a timing of the plurality of frames from the vertical sync signal, the timing usable for a determination of where in the video signal to begin modulation.

28. (New) The method of claim 18, wherein accessing a video signal further comprises:
accessing encoding instructions for the video signal.

29. (New) The method of claim 18, wherein producing a modulated video signal by raising luminance of a first frame and lowering luminance of a second frame of the plurality of frames comprises:

producing a modulated video signal by raising luminance of a first frame of the plurality of frames by increasing a first signal by 50-70 mV and lowering luminance of a second frame of the plurality of frames by increasing a second signal by 50-70 mV.

30. (New) The method of claim 18, wherein the second frame is located prior to the first frame in the video signal.
31. (New) The method of claim 18, wherein the second frame is located after the first frame in the video signal.
32. (New) The method of claim 18, wherein the video signal includes a digital video signal.
33. (New) A method comprising:
accessing a digital video signal, the video signal comprising a plurality of frames; and
altering intensity of at least two frames of the plurality of frames to encode the digital video signal.
34. (New) The method of claim 33, wherein encoding the digital video signal by altering intensity of at least two frames of the plurality of frames comprises:
encoding a digital video signal by raising intensity of a first plurality of pixels of a first frame of the plurality of frames and lowering intensity of a second plurality of pixels of a second frame of the plurality of frames in a substantially invisible way.
35. (New) A method comprising:
accessing a digital video signal, the video signal comprising a plurality of frames; and
encoding a signal presence in the digital video signal by increasing luminance of a first frame of the plurality of frames and decreasing luminance of a second frame of the plurality of frames in a substantially invisible way, the first frame and the second frame being consecutive frames of the plurality of frames.
36. (New) The method of claim 35, further comprising:
encoding a signal absence in the digital video signal by decreasing luminance of a third

frame of the plurality of frames and increasing luminance of a fourth frame of the plurality of frames in a substantially invisible way, the third frame and the fourth frame being consecutive frames of the plurality of frames.

37. (New) A method comprising:

selecting a plurality of sets of frames of a digital video signal;

selecting a luminance adjustment level;

encoding a signal presence in at least one set of frames by increasing luminance of a first frame of the at least one set of frames by a larger value than the luminance adjustment level and decreasing luminance of a second frame of the at least one set of frames by a smaller value than the luminance adjustment level in a substantially invisible way, the first frame and the second frame being consecutive frames of the plurality of frames; and

encoding remaining sets of frames of the plurality of frames by increasing luminance of the first frame of the remaining sets of frames by the luminance adjustment level and decreasing luminance of the second frame of the remaining sets of frames by the luminance adjustment level in a substantially invisible way.

38. (New) The method of claim 37, wherein encoding a signal presence in the digital video signal further comprises:

encoding a signal absence in at least one of a second set of frames by increasing luminance of the first frame of the second set of frames by a value smaller than the luminance adjustment level and decreasing luminance of the second frame of the second set of frames by a value greater than the luminance adjustment level in a substantially invisible way.

39. (New) A method comprising:

accessing signal strength of two consecutive frames of a video signal, the two consecutive frames including a first frame and a second frame; and

reporting a signal presence for the two consecutive frames when a signal strength of the first frame differs from the signal strength of the second frame beyond a minimum threshold.

40. (New) The method of claim 39, wherein accessing signal strength of two consecutive frames of a video signal comprises:

integrating two consecutive frames of a video signal, the two consecutive frames including a first frame and a second frame; and
measuring signal strength of the first frame and the second frame.

41. (New) The method of claim 39, further comprising:

reporting a signal absence for the two consecutive frames when the signal strength of the first frame does not differ from the signal strength of the second frame beyond the minimum threshold.

42. (New) A method comprising:

accessing signal strength of a plurality of sets of two consecutive frames of a video signal, each of the sets of two consecutive frames including a first frame and a second frame;

determining a signal presence for each set of frames of the video signal when a signal strength of the first frame differs from the signal strength of the second frame beyond a minimum threshold;

determining a signal absence for each set of frames of the video signal when the signal strength of the first frame does not differ from the signal strength of the second frame beyond the minimum threshold; and

decoding data contained in one or more data packets, the one or more data packets constructed from at least one signal presence or signal absence encoded within the video signal.

43. (New) The method of claim 42, further comprising:

providing a promotional opportunity in response to having decoded the data.

44. (New) The method of claim 42, further comprising:

providing enhanced game play in response to having decoded the data.

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45. (New) The method of claim 44, wherein enhanced game play is selected from a group consisting of an additional life, a bonus level, a new weapon, or a new monster.

46. (New) A machine-readable medium comprising instructions, which when executed by a machine, cause the machine to:

access a video signal, the video signal comprising a plurality of frames; and
produce a modulated video signal by raising luminance of a first frame and lowering luminance of a second frame of the plurality of frames.

47. (New) The machine-readable medium of claim 46, wherein instructions-causing the machine to produce a modulated video signal causes the machine to:

producing a modulated video signal by raising luminance of a first plurality of pixels of a first frame of the plurality of frames and lowering luminance of a second plurality of pixels of a second frame of the plurality of frames.